



## INSPECTION REPORT: GREENS CREEK MINE

Tongass National Forest Minerals Group  
8510 Mendenhall Loop Rd  
Juneau, AK 99801  
(907) 789-6273 – office  
(907) 586-8808 – fax

Date of Inspection: Friday August 30, 2017  
Date of Report: Monday September 18, 2017  
USDA Forest Service Inspector: Richard Dudek

Ranger District: Admiralty National Monument, Juneau Ranger District  
Weather Conditions: Partly Cloudy Temperature: mid 50's (°F).

Exploration in accordance with operating plan	Not Applicable
Timber removal following timber sale contract	Not Applicable
BMP for erosion control	Satisfactory
Water Quality BMP	Satisfactory
Public safety & fire prevention	Satisfactory
Reclamation work adequate and timely	Satisfactory
Roads maintenance adequate and current	Satisfactory
Tails placement in accordance with plan	Satisfactory
Waste Rock placement in compliance	Satisfactory
Company supervision of operation	Satisfactory
Operating in a clean and orderly manner	Satisfactory

\*\*Any conditions noted as UNSATISFACTORY will require follow up action by the Mine Inspector and a written memorandum to the operator, outlining the necessary work.\*\*

### NEW REMARKS

Ward Air provided a Cessna 185 to/from site.

Mitch Brooks (Environmental Engineer, Hecla Greens Creek Mining Company (HGCMC)) accompanied Richard Dudek (Geologist, US Forest Service (USFS)), and David Wilfong (Alaska Department of Natural Resources (ADNR)).

The site inspection included the A and B access roads, 1350 area, 920 area, Site 23, 7.4 mile B-road Bridge (Killer Creek Bridge), Site E (4.7 mile B-road), Pit 6 (4.6 mile B-road), 3.4 mile B-road Bridge (Falls Creek Bridge), 3.0 mile B-road Bridge (Zinc Creek Bridge), the TDF area, and the sand pit (1.4 mile A-road).

### ACTION ITEMS

- There are no new action items to report.

### NOTE WORTHY ITEMS

During the fall months, contractors will construct a new wheel wash station for the TDF area. HGCMC submitted a proposal to the USFS for relocating their cement batch plant. In the fall of 2017, HGCMC will be installing a water misting system for fugitive dust control in the TDF.

### ACCESS ROADS A/B

The access roads are in good condition, and comply with HGCMC's BMP Plan Appendix 8 for Road Operations and Maintenance.





### **1350 AREA**

The trench and pump are working as intended (Photo 1), and HGCMC Surface operations are maintaining the portal (Photo 2) which is primarily used for ventilation, and as a secondary escape way.

### **920 AREA**

The recorded flow rate for Greens Creek (Photo 3) on 08/30/2017 was 42.45 cubic feet per second (cfs), and the water withdrawal for the 920 water system remains at 1.5 cfs.

HGCMC Surface operations are properly maintaining the 920 Bridge (Photo 4), and the sedimentation at both bridge ends was minimal.

At the time of the inspection, contractors were working on the 920 warehouse expansion, which will increase storage by 2,080 square feet (Photos 5-6).

The 920 warehouse storage area (Photo 7) was tidy and in order (Appendix 5 BMP Plan; pages 39-40).

### **SITE 23**

During the site inspection, additional Class 1 waste rock (Photo 8) was being deposited (Appendix 1; Section 3.1).

### **7.4-MILE B-ROAD BRIDGE (KILLER CREEK BRIDGE)**

Surface operations are maintaining the bridge (Photo 9), and the splashguards (Photo 10) are effectively preventing sediment splash-over from vehicle traffic. The downhill side abutment (Photo 11) has established vegetation, which will help stabilize the slope (Appendix 5 BMP Plan; page 13).

### **SITE E**

This site is an inactive waste rock storage area (Appendix 11 Waste Rock Management Plan, Section 2.4 Table 2). HGCMC personnel are properly maintaining the collection pond and the electric fence around the pond's perimeter (Photo 12).

### **PIT 6**

This is an inactive site (Photo 13). The reclaimed area has established vegetation and was contoured for stormwater runoff. Stormwater monitoring site 547 SW (Photo 14) is located downgradient from the pit, and is part of HGCMC's APDES monitoring program.

### **3.4-MILE B-ROAD BRIDGE (FALLS CREEK BRIDGE)**

HGCMC personnel are maintaining the bridge (Photo 15), and the splashguards are preventing sediment splash-over into the creek (Photo 16). Residual sediments from surface water runoff remain underneath the bridge (Photo 17).

### **3.0-MILE B-ROAD BRIDGE (ZINC CREEK BRIDGE)**

HGCMC personnel completed the re-decking and relining of the bridge (Photo 18) on August 10, 2017.

The splashguards (Photo 19) are preventing sediment splash-over into the creek, and the structural BMPs located on the uphill/downstream side of the bridge are functioning as intended (Photo 20). HGCMC Surface operations have a tentatively scheduled plan to clean the abutment drain where a white precipitate is steadily dripping onto the ground (Photo 21). After the drain is cleaned out, the accumulation of white substance will be monitored.



### **TDF AREA**

HGCMC continues to deposit tailings in the TDF S3P1 area (Photos 22-23). HGCMC is currently engaged with the Alaska Department of Natural Resources (ADNR) Alaska Dam Safety Program for authorization to use Pond 10 (Photo 24) and the concrete flow control structure (Photo 25).

At the time of this inspection, the water treatment plant was discharging 1,554 gallons of water per minute (gpm) through Outfall 002. All treated/discharged water through this Outfall is limited and monitored per APDES permit requirements. The water treatment (Photo 26) plant was tidy and in order (Appendix 5 BMP Plan; pages 39-40).

HGCMC personnel continue to hydroseed the northwest slopes (Photos 27-28) of the TDF. The established vegetation will help soil stability, and minimize erosion damage to the slopes (Appendix 5 BMP Plan; page 13).

### **SAND PIT (1.4 MILE A-ROAD)**

This site is currently inactive (Photo 29).

### **FOLLOW UP ITEMS**

**The inspection of the TDF area's ongoing operations.**

**B-road bridges sediment accumulation and the inspection of the BMP's at the bridge.**

**The new wheel wash station.**

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### **PHOTOS** (Images available upon request)

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**Photo 1. The 1350 trench and pump.**



**Photo 2. The 1350 adit.**



**Photo 3. The Greens Creek weir in the 920 area.**



**Photo 4. The 920 Bridge.**



**Photo 5. The 920 warehouse expansion (Image 1 of 2).**



**Photo 6. The 920 warehouse expansion (Image 2 of 2).**



**Photo 7. A 920 warehouse storage container provides secondary containment for petroleum products.**



**Photo 8. Class 1 waste rock being deposited at the Class 1 waste rock stockpile.**



**Photo 9. 7.4 mile B-road Bridge (Killer Creek Bridge).**



**Photo 10. Killer Creek Bridge's splashguard.**



**Photo 11. A view below Killer Creek Bridge.**



**Photo 12. Site E collection pond.**



**Photo 13. Pit 6 located at 4.6 mile B-road.**



**Photo 14. Stormwater monitoring site 547 SW.**



**Photo 15. 3.4 mile B-road Bridge (Falls Creek Bridge).**



**Photo 16. Falls Creek Bridge's splashguards are effectively working by preventing sediment splash over.**



**Photo 17. Residual sediments observed underneath Falls Creek Bridge.**



**Photo 18. 3.0 mile B-road Bridge (Zinc Creek Bridge).**



**Photo 19. One side of the Zinc Creek Bridge's splashguard.**



**Photo 20. BMP structures located on the uphill/downstream side of Zinc Creek Bridge.**



**Photo 21. The uphill side abutment drain (Zinc Creek Bridge).**



**Photo 22. HGCMC TDF personnel were actively placing tailing in the S3P1 area.**



**Photo 23. Southern area of the S3P1 expansion area (TDF area).**



**Photo 24. Pond 10.**



**Photo 25. Piping in the concrete flow control structure.**



**Photo 26. HGCMC's water treatment plant at the TDF.**



**Photo 27. Vegetative cover for slopes in the northern TDF area.**



**Photo 28. HGCMC TDF personnel recently applied hydroseed to the TDF slopes near pond 9.**



**Photo 29. The Sand pit located at 1.4 mile A-road.**

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Thanks to HGCMC for a safe visit.  
U.S. Forest Service Officer: /s/ Richard Dudek

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